

REMARKS

Claims 1-22 are pending in the Application.

Claims 1-22 stand rejected.

Claims 1-12, 14, and 15 have been amended. No new matter has been added. Support for the amendments to Claims 1 and 12 can be found, at least, within paragraphs [0031], [0032], and [0045] of the Application. Amendments to dependent Claims 2-11, 14, and 15 have only been made for consistency with the independent claims on which they respectively depend.

Rejection of Claims under 35 U.S.C. §112

Claims 4 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as having insufficient antecedent basis. Applicants have amended these claims and respectfully submit that this rejection has been overcome.

Rejection of Claims under 35 U.S.C. §103

Claims 1-22 stand rejected under 35 U.S.C. § 103(a) as purportedly being unpatentable over U.S. Patent Publication No. 2002/0178077 naming Katz as inventor (“Katz”). Applicants respectfully traverse this rejection.

Amended independent Claims 1 and 12 recite limitations similar to:

synchronizing inventory balance information between a source computerized inventory management system and a target computerized inventory management system, wherein the source computerized inventory management system and the target computerized inventory management system are among a plurality of computerized inventory management systems,
the synchronizing is bi-directional, and
the synchronizing comprises
extracting inventory balance information in a source format that is associated with the source computerized inventory management system,

converting the inventory balance information in the source format into inventory balance information ~~that is~~ in an intermediate format, and
converting the inventory balance information in the intermediate format into inventory balance information in a target format that corresponds to the target computerized inventory management system.

See, e.g., Claim 1 (as amended) (emphasis added). Applicants respectfully submit that the cited sections of Katz fail to teach or suggest, among other of the recited limitations: (1) synchronizing inventory balance information between a source and target computerized inventory management system; (2) bi-directional synchronization of inventory balance information; and (3) extracting inventory balance information in a source format, converting the information once into an intermediate format, and then converting the information again from the intermediate format into a target format.

The Office Action cites only Katz, in combination with the alleged ordinary skill in the art at the time of the invention, as purportedly disclosing the claimed invention. Katz is directed to integrating various types of data into a form compatible with a single, monolithic system, Katz's Value Chain Intelligence (VCI) system. *See* Katz ¶¶ [0012]-[0013], [0042], [0190], and [0054]. The cited sections of Katz present the VCI system as the integration point for several sources of data. *See, e.g.*, Katz ¶ [0196] and Figure 6. It can be seen in Figure 6, that the Discovery Database 192 and Analysis Database 194 comprise the data integration components, which is where data from the various sources of data are integrated. These sections make clear that the purpose of Katz's transformations is to integrate external data into Katz's VCI system in order to make the external data compatible with the format used within the VCI system. Once the external data has been integrated into Katz's VCI system, the VCI system is then able to work with the transformed external information. *See* Katz ¶ [0011]. Because the cited sections of Katz's disclose only integrating data into the VCI system, none of Katz's data transformations need be bi-directional, nor are the data transformations intended or capable of synchronizing data between any two of the external data sources. As will be appreciated, in Katz's architecture, data goes into the VCI system from the external data sources, and not out of the VCI system (to any destination).

By contrast, Claim 1 recites a method for bi-directionally synchronizing inventory balance information between source and target computerized inventory management systems – where the source and target are one of a plurality of computerized inventory management systems. In contrast to the claimed invention, the cited sections of Katz are only concerned with pulling data into Katz’s solitary VCI system, in order to allow Katz’s VCI system to process the data. This is to say that Katz only performs single, one-directional transformations of external data into a single format, the format of the VCI system. Because Katz only discloses the single VCI system as the endpoint of the various transformations, Katz is incapable of teaching or suggesting synchronizing inventory balance information between a plurality of source computerized inventory management systems and a plurality of target computerized inventory management systems. Thus, Katz cannot be said to teach or even suggest this element of Claims 1 and 12.

The difference between Claim 1 and Katz becomes even more evident when the implications of Katz only having a single, monolithic system are considered – and a single, monolithic system is in stark contrast to bi-directionally synchronizing a plurality of computerized inventory management systems, as claimed. In particular, if there is only one system into which data from external sources is integrated, every external system simply needs to be capable of transforming data from the external system into the VCI system. In fact, nothing is to be gained in Katz by complicating Katz’s transformation through the introduction of an intermediate stage to the direct transformation from external system to the VCI system. This lack of need for an intermediate format in Katz is a natural result of Katz’s architecture because data from a given data source needs only to be transformed from the format of the given source data directly into a data format compatible with the VCI system. *See* Katz, ¶¶ [0012]-[0013], [0042], [0190], and [0054]. On the other hand, in a system that comprehends a number of computerized inventory management systems, in which bi-directional synchronization occurs between any two of the computerized inventory management systems, the benefits of implementing an intermediate format are dramatic. This benefit will be explained below in terms of the reduction in computational complexity that results from introducing the concept of an intermediate format.

Even if Katz's VCI system could somehow be characterized as a target system (a proposition on which Applicants need not comment), there is only a single VCI system. Thus, even assuming such for the sake of argument, it could not be successfully argued that Katz teaches or suggests a computerized inventory management system comprised of a plurality of target computerized inventory management systems.

The benefits of implementing the claimed intermediate format become evident when the following example is considered. Given the single VCI system in Katz with, say, n data sources there need only be n transformations – from each data source into the VCI system format. By contrast, in a system with n source systems and m target systems, there will need to be $n*m$ conversions – one conversion from each of the n source systems to each of the m target systems. However, if a common intermediate format is introduced into the n source/ m target system, as in the claimed invention, the number of conversions necessary is reduced to $n + m$. The reduction occurs because only n conversions are necessary to convert each of the n source formats to the single intermediate format and only m conversions are necessary to convert from the single intermediate format to each of the m target formats. By using an intermediate format, it is no longer necessary for the claimed invention to convert from each of the n source systems to those of each of the m target systems – the claimed system need only be able to convert from each of the source formats to the single intermediate system, and then from the intermediate format to that of each of the target formats. As will be further appreciated, assuming n systems, each of which can be a source or target, one can conclude that the use of an intermediate format reduces the number of format conversions from about $O(n^2)$ to about $O(n)$.

Of course, instead of a single conversion from source system to target system, the use of an intermediate format necessitates two conversions in order to move data from a source system to a target system: the conversion from the source format to the intermediate format and the conversion from the intermediate format to the target format. The second conversion, necessary to go to and from the intermediate format, is the trade-off for reducing the number of direct conversions that would be required otherwise. However, another benefit of the claimed invention is that when a target system is added, no new conversions need to be introduced to any of the source systems because the

claimed invention still need only provide a conversion from each source system to the single intermediate format. Thus, the added target system results in only a single extra conversion: from the intermediate format to the new target format. The plurality of source systems are unaffected by the addition of the new target system. As will be appreciated, the converse also holds true. The result is constant value scalability.

Katz only has the single VCI system as the endpoint of each transformation, with no intermediate points whatsoever. Thus, Katz need only perform a transformation from each data source's format into that of the single VCI system. Given only the need for direct transformations from a plurality of sources to the single VCI system, there is no need of anything even remotely comparable to the claimed intermediate format. In fact, such an extra conversion step would not only be pointless, but would be counter-productive by increasing the computing resources needed to perform the requisite transformation. This explains the complete lack of teaching of any element even remotely comparable to the claimed intermediate format within the cited passages of Katz. Thus, it cannot be said that Katz teaches or suggests synchronizing that comprises a conversion of inventory balance information in a source format into an intermediate format and then conversion of the intermediate format into a target format, where the source system is one of a plurality of source computerized inventory management systems and the target system is one of a plurality of target computerized inventory management systems.

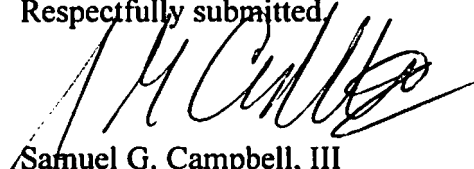
For at least these reasons, Applicants submit that Katz does not provide disclosure of all the elements of independent Claims 1 and 12, and dependent claims therefrom, and that these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, this Application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicants hereby petition for such extensions. Applicants also hereby authorize that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. G. Campbell, III', written over a horizontal line.

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